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REPORT

on

FISH AND SHELLFISH IN THE CHESAPEAKE BAY
AND POTOMAC RIVER

with

RECOMMENDATIONS FOR THEIR
FUTURE MANAGEMENT

by

CHESAPEAKE-POTOMAC
STUDY COMMISSION

For Virginia

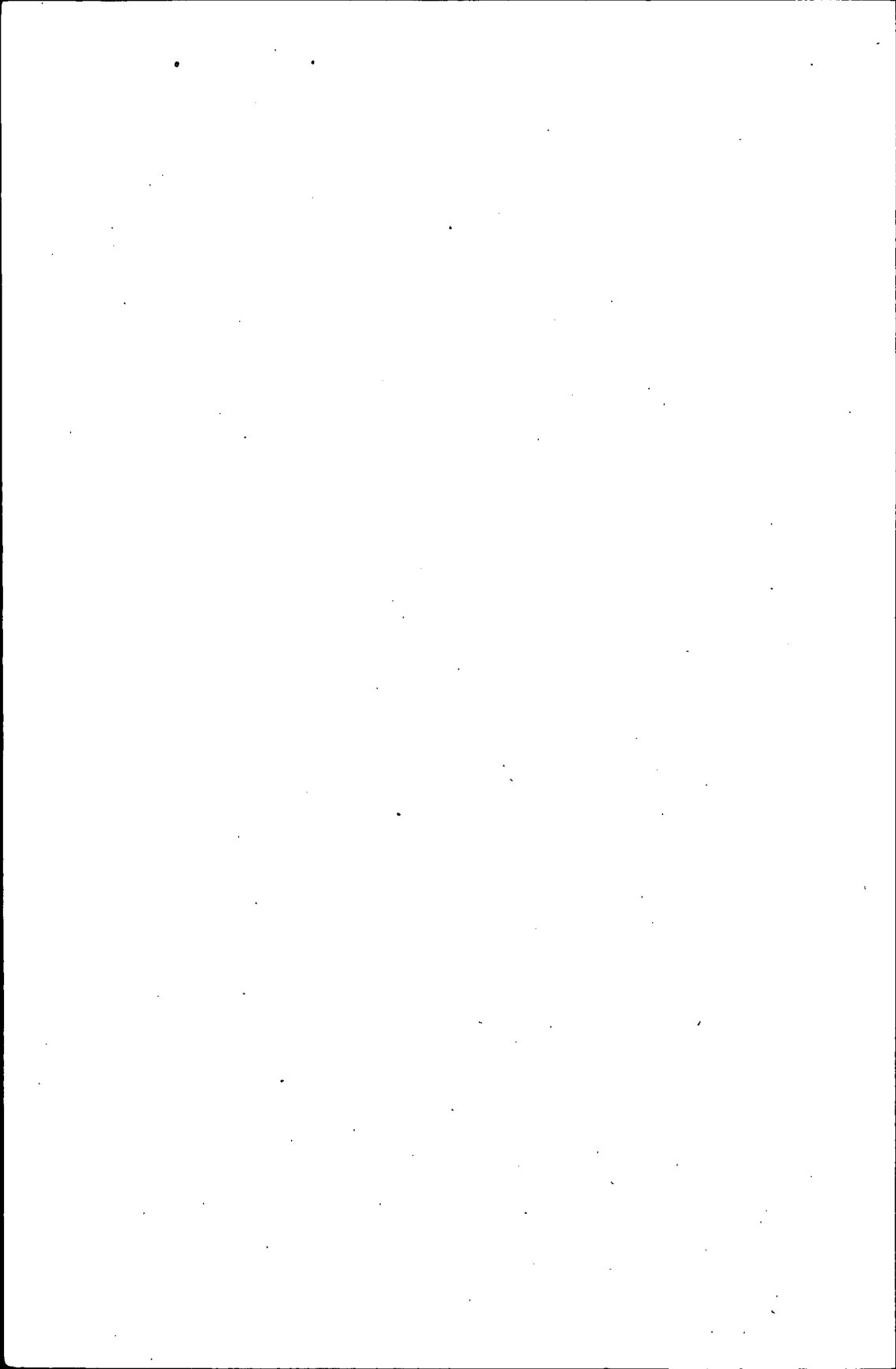
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January 7, 1948



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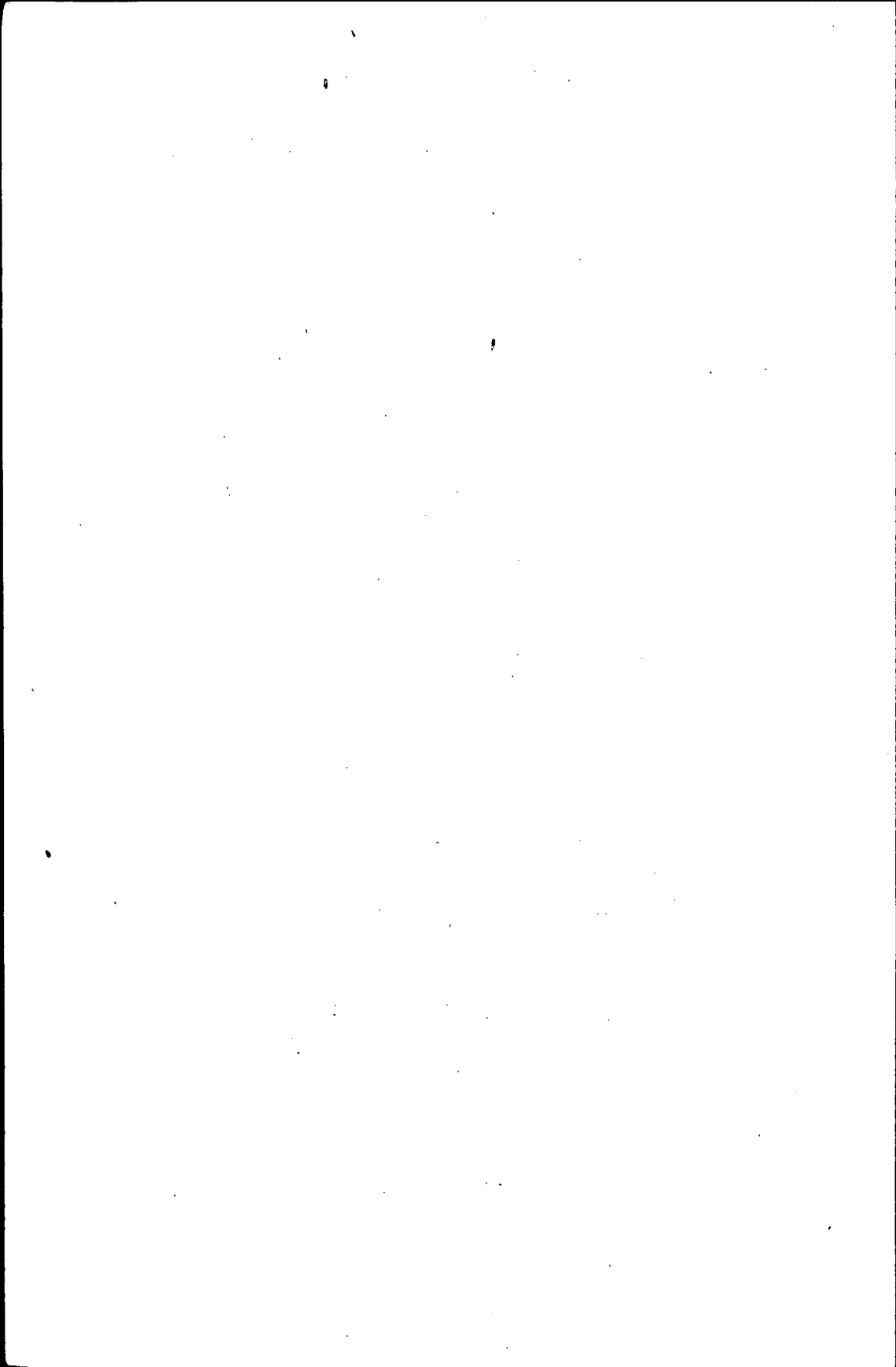
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INTRODUCTION

This report is the result of identical resolutions adopted by the General Assemblies of Virginia and Maryland at their sessions in 1947. The resolution established a Commission composed of three members from each State to:

“(1) Restudy the Compact of 1785 and the concurrent legislation enacted thereunder with respect to the fisheries of the Potomac River and Chesapeake Bay;

(2) Consult and advise with the pertinent State, interstate and Federal agencies and citizens concerned therewith;

(3) Determine whether improvements in the administration and enforcement of existing laws are needed, or whether the concurrent laws of the two States need to be amended, or whether the best interests of the fisheries and of the people of the two states will be served by granting additional powers to existing State or interstate agencies, or whether a new joint commission, or interstate authority should be created by compact or reciprocal legislation between the two states and empowered to study, determine policy and make and enforce regulations applicable to the fisheries of the tidewaters of the Potomac River and of the tidewaters of the Chesapeake Bay, within the jurisdiction of the two states;

(4) Bring the problems and responsibilities facing the two states to the attention of the public through the press, radio, schools, civic organizations, and any other means of disseminating information;”

With this directive in mind the Governors of the two States appointed three members from each State. The first meeting was held at Mount Vernon, Va., a few days after the anniversary of the signing of the Compact of 1785. At that meeting both Governor Tuck and Governor Lane pledged their wholehearted cooperation and support of the Study Commission. The first meeting was dedicated to organization with former Senator C. O'Connor Goolrick of Fredericksburg, Va., elected Chairman and Major Robert H. Archer of Bel Air, Md., selected as Vice-Chairman. The Commission has had eight meetings, some in Maryland and

some in Virginia. Each meeting consisted of not less than three sessions, one beginning in the forenoon of the first day which lasted until late in the afternoon; one at night, and a third session on the forenoon of the second day, with the following exceptions: Two meetings were held on the Potomac (the flagship of the Maryland Commission), each of which lasted two days and one night, and the last meeting was held in Washington where the Report was finally approved.

The Commission has attempted to hear all the best thinking on Chesapeake Bay and Potomac River fishery and shellfish problems. Since the Chairman of the Fisheries Departments of the two States are intimately acquainted with the Bay and the fisheries, they have attended nearly all of the sessions of the Commission and presented their views.

The Atlantic States Marine Fisheries Commission has been consulted and their secretary appeared to outline in some detail the consideration given to Bay problems by the Chesapeake Panel of the Commission. Some of their recommendations have been adopted as part of the program proposed by this report.

A public hearing was conducted in Colonial Beach, Va., to obtain the views of the local Virginia watermen on oystering in the Potomac. A similar meeting, held in Baltimore, Md., presented the position of Maryland oystermen on oyster rehabilitation in the Potomac River. The Commission found these hearings to be most helpful in the formulation of a program of positive action.

Biologists of the U. S. Fish and Wildlife Service presented studies and findings on the shad and herring populations within the Bay. They suggested joint management and cooperative research to control and rehabilitate the fisheries.

In its studies the Commission has availed itself of numerous printed documents and reports on the Chesapeake Bay

and the Potomac River. It has been recognized that the solution of the problem of depletion is essential and of paramount importance directly to most of the activities of tidewater Maryland and Virginia, but we feel that all citizens of the two States, irrespective of their geographical location, should take an active interest in the public fishery resources of the two States.

It is believed by the Commission that fishing and oystering will be improved greatly within a few years if its recommendations are adopted by the General Assemblies of the two States, and are carried out by the proposed joint authority proposed herein.

Since the resolution creating the Commission specifically enjoined this group to study both the Chesapeake fishery problem and the Potomac River oyster industry, efforts have been made to become familiar with various phases of the industry, laws controlling the taking of various species, and the bearing these laws have had on fishery production.

Appended hereto there is a comparative analysis of fish, crab and oyster laws in Virginia and Maryland. This study shows that the two States have had widely divergent views on Chesapeake Bay fishery laws, with no coordinated program of controls. However, laws covering the taking of seafoods from the Potomac River were practically identical until Virginia passed a law in 1934 permitting dredging. Maryland representatives have opposed this change and its Legislature has not enacted concurrent legislation. On the other hand, Maryland adopted legislation in 1943 giving the Maryland Commission of Tidewater Fisheries the power to promulgate rules and regulations to manage the Potomac crab fishery. To date Virginia has not concurred in this measure, and therefore it is not in effect.

The Atlantic States Marine Fisheries Commission has been attempting to develop coordination and cooperation between the two States. A Chesapeake Bay panel has been meeting regularly since 1942. These efforts have made

both States aware of their joint responsibilities. This panel developed a plan for management of the Potomac River which will be discussed elsewhere in this report. They have had reports from the two state research agencies and the U. S. Fish and Wildlife Service on the Bay crab problem and certain regulations have been promulgated as a result of these conferences.

CONDITION OF THE FISHERIES

Chesapeake Bay and Tributaries

1. *Scope of Commission's Study*

This study has been confined to fin fishes and to a lesser extent crabs. It is generally agreed that the control of the oyster industry in the two States outside the Potomac and its tributaries is a matter for each State to manage. Oysters are sedentary animals living on the bottom. The two States should be permitted to resolve their local production problems outside the Potomac River since their success or failure would have little or no effect on the yield or the citizens in the other State.

2. *Fishery Production*

The fisheries in the Chesapeake Bay are producing now about one-half the volume attained forty years ago (Table 1). Certain individual species have been maintained at high levels of production by (1) expansion of fishing grounds, and use of more efficient gears in the cases of the menhaden, croaker and grey trout in Virginia and (2) by enactment of certain fishery laws, as in the case of rock in Maryland waters.

Other species fluctuate widely in catch in spite of certain fishery laws and regulations adopted by the States. This condition is more or less characteristic of the crab and blue fish in both States, although the latter species migrates widely and must be managed as part of a general plan for the Atlantic Coast.

The third group are those species which have become depleted even though attempts have been made to insure a stabilized production. This category includes the shad and herring, and this Commission has deliberated at length on the practical solution for management.

3. Depletion of Shad and Herring

The catch of shad has declined from 17,329,000 pounds in 1897 in Chesapeake Bay and tributaries to 5,902,000 pounds in 1945, the latest year for which catch data were available for both States. This diminution has not been experienced equally in both States. The peak of production was attained in 1890 in Maryland but the decline in recent years has been greater than in Virginia, whereas the maximum catch was made in Virginia in 1897, followed by a decline, and a subsequent sharp upturn in 1944 and in 1945 (Table 2).

In the years prior to 1920 it was thought that the shad population would remain abundant if hatcheries were operated on a large scale. Vast quantities of shad eggs were hatched on most Chesapeake tributaries with little indication of any appreciable deviation in the downward trend of the fishery. Federal hatcheries, in all areas except the Potomac River, were discontinued about 1920 but the states have operated hatcheries on a small scale in most of the intervening years. The Commission, after careful study, believes that hatcheries have not stemmed the decline in the past and should not be depended upon materially to increase production in the future.

In 1936 the Maryland Chesapeake Biological Laboratory and in the following year the U. S. Fish and Wildlife Service began extensive research studies to accumulate biological data and if possible ascertain the causes of the decline in the population. Their findings in 1937, 1938 and 1939 revealed that only about 9% of the total run of shad into the Bay was escaping the nets to spawn and return again the following year. This figure of 9% compared

with the 40% found to be necessary in the Hudson River to maintain the shad population, gave some measure of the depletion in Chesapeake Bay. Tagging studies also revealed a very intensive fishery and the conclusion was reached that too much fishing was the primary cause of the decline in the population.

Tagging records showed that shad migrating into the ocean returned to the Chesapeake Bay and even to the same river. Some shad tagged after spawning in the Susquehanna River, returned the following year and were caught in the Bay and at least one back in the Susquehanna. Scale studies of juveniles revealed that the shad in each river had characteristic scale marking and even in the two branches of the York River were easily distinguished.

Maryland has taken the lead in attempting a fishery management plan. When her shad catch dropped to an average of about 500,000 pounds for the period from 1936 to 1940, the fishermen and conservation personnel jointly evolved a program to reduce fishing.

After many fishermen's meetings with biologists and administrators, a bill was drafted limiting the number of commercial fishermen to those already engaged in the business and reducing the lengths of certain gears. This bill, with the support of the commercial fishermen, was adopted by the Maryland Assembly in 1941 without a dissenting vote and became effective in 1942. At the time a similar plan was proposed in Virginia but was not presented to the Assembly.

The majority of people in Maryland informed on the subject believe that the program has been partly successful even though Virginia is in a key position to intercept fish moving up the Bay. The shad catch has increased slightly in Maryland but it is a widespread belief, perhaps borne out by the records of production (Table 2), that the real benefits have gone to the Virginia fishermen at the sacrifice of the Marylanders. Shad production in Virginia

doubled in 1944 and 1945 over the average for the period from 1936 to 1940.

An analysis of all facts bearing on fishery production in the Chesapeake Bay forces one to conclude that the Bay must be considered a natural biological unit. Shad and herring moving into the Bay pass through the lower Bay and enter into the Virginia rivers or up the Bay into Maryland waters. Either state may seriously injure the fishery population—Virginia by catching too many fish in the open waters before they get into the rivers for spawning purposes, and Maryland by fishing intensively on the spawning grounds and just before the fish reach the spawning grounds.

Herring, in a general way, follow the migratory pattern of the shad although the details have not been so thoroughly studied. The herring migrate farther upstream to their spawning grounds than do the shad. For this reason, they may be more affected by silting of their spawning grounds from improper soil controls on the watersheds of the tidewater streams. This suggestion has been advanced as one of the causes for the decline. It is felt that silting as one of the factors influencing depletion should be the object of an intensive investigation. However, this Commission is convinced that the herring decline has been caused primarily by too much fishing. The trend of the decline follows closely that of shad. The present production is about one-third the former production (Table 3).

It is of interest to note that both shad and herring catches increased preceptibly in 1944 and 1945 particularly in Virginia waters. This increase took place several years after the effective date of the Maryland Fishery Management Plan adopted in 1941. It is probable that the increased production is due partly to these controls which held down the fishing rate in Maryland and partly to war-time restrictions, which reduced greatly the numbers of nets in Virginia waters. This encouraging turn should point the way

for controls in lower Bay waters to provide adequate escape of fish to the spawning grounds.

4. *The Croaker Fishery*

The croaker or hardhead, has developed into a major industry in the last 15 years primarily because of the southern winter otter trawl fishery along the Atlantic Coast from the mouth of the Bay to Cape Hatteras, N. C. Croakers were caught in great quantities and new markets were developed by the fishing industry. In the last 7 years Bay fishermen in both Maryland and Virginia have found this fish to be an important part of their catch. The croaker is migratory from the ocean into the estuaries and above and then returning to the sea. The movement of adult fish into Chesapeake Bay begins either in March or early April. Great schools are caught as the fish move to the less salty water. Unlike the shad and herring spring migration, the croaker migrates inshore apparently for feeding and fattening. After spending part of the summer in the Bay they leave in early fall and spawn at the mouth of Chesapeake Bay. They are taken mostly by pound nets and haul seines while inshore but are caught almost exclusively by otter trawls while in the ocean. This ocean fishery extends from early fall until the following spring and the bulk of the fish is caught there. During the war years, coastal trawling was drastically curtailed. The catch in Chesapeake Bay rose so that Maryland alone produced about 5,000,000 pounds in both 1943 and 1944. This yield is almost 50% higher than had been experienced in former years. In the last two years the catch has again been reduced in the Bay waters, with the resumption of off shore fishing. This fluctuation in inshore catch may be merely a normal variation in abundance of the total species. If this is found to be the case there is no cause for alarm. However, the present drop in production has created a real problem for certain groups of inshore fishermen. This Commission feels that the croaker fishery should be studied as part of an overall fishery investigation to determine, if possible, the

causes for the fluctuations. In the meantime, controls on the offshore fisheries should be considered by the fishery officials of the two States.

5. *Menhaden Excluded*

Since the menhaden is caught primarily in the ocean, and purse nets cannot by law be used in Maryland to catch this species, it is omitted from consideration in this report. The Commission recognized the importance of the fish for fertilizer, meal, oil, etc. but believes it is first a local matter for Virginia. Actually there is little indication of depletion in the fishery at the present time.

6. *Rock Population*

Another species, the rock or striped bass, is of major importance to Maryland and to a lesser degree to Virginia. Over the past fifty years the abundance of this fish has fluctuated widely. Intensive study by the Maryland Chesapeake Biological Laboratory yielded some most important facts. First, the rock made rather extensive seasonal migrations in the Bay but that only a small part of the population actually migrated out of these waters. Secondly, the female rock does not spawn before at least 4 years of age and about 18 inches in length and thirdly, the intensive fishing in the late '30s was removing almost 75% of any one given years' hatch within the first year after reaching the legal size limit.

The year 1940 was most successful for rock spawning and a large brood was produced. Before these fish grew to the legal size of 11 inches in Maryland the fishery management law was passed there. Commercial licenses were restricted from 1942 but in spite of this, production rose to an all time high and remained there for several years. A similar but more abundant year class had entered the fishery in Maryland in 1936, but with unrestricted fishing the catch sky-rocketed in 1936 and 1937 and declined thereafter. In other words, after 1941 a smaller number

of fish actually produced more pounds over a longer period of time because the fish were caught at a slower rate and more of them grew to a larger size. This control on the fishing rate also increased the number of spawning fish although the spawning population apparently was sufficient even before the law was adopted.

It is believed that the example cited above is one of the best practical demonstrations of the need for joint control and action by the two States. In this case, Virginia probably benefited to some extent although Maryland fishermen were helped more directly.

7. *Other Species*

Various other species, including spot and grey trout are migratory and are shared jointly by the two States. Further studies are necessary to determine the fluctuations in abundance in these and other species. It is believed, however, that a joint Bay authority should have control over these species and gears used to catch them.

8. *The Blue Crab*

The blue crab is one of the most important commercial species in the Chesapeake Bay. Part of its life is spent in Virginia and part in Maryland. Each state takes a considerable part of the population although for the past 15 years the catch of Virginia has been consistently higher than by Maryland crabbers.

Young crabs hatched in summer in waters at the mouth of the Bay migrate northward and spend the winter close to the Maryland-Virginia boundary line. In the following spring they enter the fishery as soft crabs and later in the summer are taken as hard crabs. Mating takes place in the shallow waters in the upper Bay. After mating, the females migrate toward saltier waters and spend the winter in the deeper parts of the Bay from Smiths Island to the Capes.

These mated females continue on their down-bay migration in the spring and early summer. The eggs are laid and carried by the female attached to her abdomen. Hatching normally takes place in about two weeks when the cycle is repeated.

The male crabs, after mating, do not make the extensive migrations but spend the winter in the brackish waters of the Bay and its tributaries.

The crab is subjected to an intensive fishery from the time it reaches the minimum legal size for "peelers" of three inches until the eggs are hatched by the females.

Maryland catches crabs from May 1 until the end of October with dip nets, trot lines, scrapes, hand seines and in the Bay and Potomac River by crab pots. The Virginia laws permit the taking of crabs during all seasons by scrapes, trot lines, crab pots, and dredges in the winter time.

Some Maryland crabbers and conservation officials have contended that winter dredging and the taking of sponge crabs was destructive and dangerous to the industry, whereas the Virginia officials have insisted that the taking of mated females in the fall migration was equally dangerous. A sanctuary was established by Virginia in 1941 at the mouth of the Bay in the area of great concentration of "sponge" crabs. This sanctuary is still maintained.

Over the past 5 years a cooperative research program has been carried on by the U. S. Fish and Wildlife Service and the conservation research organizations of the two states. This research project is continuing and the joint authority would have an opportunity to avail itself of the progress in these studies. This Commission does not attempt to outline anything further to be done in crab management but recommends that regulations for the management of this species should be promulgated by the joint authority.

9. *Need for Joint Control by Maryland and Virginia*

Some method of joint control of Bay fisheries must be developed if production is to be maintained and increased. There are numerous methods of fishery controls which have been used by other states and countries in the past. They are listed below without further discussion:

1. Decrease the length of nets.
2. Increase the spacing between nets.
3. Set aside areas in which no nets may be set.
4. Have specific time when all nets must be removed from the water.
5. Size of mesh (for certain species).
6. Size limits (for certain species).
7. Prohibit use of certain gears and legalize others.
8. Limit the number or amount of net that may be fished.
9. Regulatory powers to Fisheries Commission to use all these methods or a combination of certain ones.

Potomac River

1. *Compact of 1785*

The Potomac River fisheries have been controlled differently from those in the Chesapeake Bay proper. While citizens of Maryland or Virginia may take seafood commercially only in the Bay or tributary waters of the state of which he is a resident, any citizen of either Maryland or Virginia may take oysters, fish, crabs or other seafoods from the waters of the Potomac River. This latter condition was the result of the Compact of 1785 in which Virginia guaranteed Maryland ships free passage through the Virginia Capes, in exchange for an equal right of fishery in the Potomac River, the bed of which belongs to Maryland. This Compact is still in effect today even though the right of free navigation of the Bay is guaranteed by the Constitu-

tion of the United States which was adopted four years after the Compact was entered into.

2. Past Abundance of Seafood

Early writers indicated great abundance of fish, particularly shad and herring in the Potomac. There was no record of any serious decline from the time of the adoption of the Constitution of the United States until late in the 19th century. Oyster production as late as 1927 was nearly 1,000,000 bushels. The catch in fish started to decline gradually some years before 1927.

Dr. David Frey, Oyster Investigator of the U. S. Fish and Wildlife Service in his 1946 report, *Oyster Bars of the Potomac River*, states, "... production in the central portion of the Potomac in recent years declined from a peak of 950,000 bushels in 1927 to a low of less than 50,000 bushels during the years 1931 through 1933. A survey by Luce in 1929 of the bars showed them to be in a serious state of depletion. The report recommended the abolishment of dredging and the shelling and seeding of the bars. As pointed out earlier, dredging was halted by law in 1931. Within a few years a good set of oysters was obtained and production rose sharply, even though tonging was the only legal method by which the oysters could be taken. Production gradually declined again, hastened by floods in 1936 which killed large quantities of oysters and in some areas reduced the population to the point where tonging was unprofitable. However, another set occurred in 1941 and the bars again became fairly well populated. Production increased to a relatively high level from 1943 through 1945, estimated by Dr. Frey to have reached about 450,000 bushels. This increase in production of oysters was accompanied by a great demand and high prices. Illegal dredging of the bars materially reduced the oyster population. In the last two years, production has dropped sharply to an estimated 150,000 bushels and approaches the low catches made from 1931 through 1933.

3. *Management Problems*

Several important commercial species of fin fish move in and out of the Potomac River, and are caught during their migrations in both the Chesapeake and its tributaries. For these reasons, in the consideration of the fin fisheries of the Potomac River, the Commission has viewed them in the overall Bay picture rather than as an individual unit. This has not been the case insofar as oysters are concerned. The individual oyster problems in the two states aside from the Potomac and its tributaries are not the interest of this Commission since they do not involve migratory resources. Each state has within its boundaries the basic needs for successful oyster culture and therefore is not necessarily dependent upon the administrative controls of the other. This is not true of the Potomac River. Since any citizen of either Virginia or Maryland may take oysters from the Potomac River, the regulation of this oystering to provide the highest possible yield is the equal responsibility of both states. This was recognized when concurrent laws were enacted by the two states to control the taking of oysters. This arrangement was adhered to closely for many years. In 1930 a law prohibiting dredging in the river was passed in Virginia and a similar law was passed by Maryland in 1931. Virginia in 1934 repealed the law prohibiting dredging and legalized power dredging but this act has not been concurred in by Maryland. This was the beginning of the widening difference of opinion in the two states on the types of legislation needed to conserve oysters. An even more specific enactment was made by Virginia in 1946 to permit certain types of power dredging. In 1947 Maryland again refused to concur in this legislation.

This action by Virginia and refusal by Maryland to concur has resulted in widespread, and in some cases, flagrant violations of the concurrent law prohibiting dredging. Some Virginians felt they were justified in dredging by the action of their legislature, while Maryland dredgers

probably reasoned that they would not stand by and permit oysters to be removed by dredges, while they were required to use tongs. The result has been dredging by numerous citizens of both states, who, because of the high prices prevailing for oysters, were willing to take the risk of being apprehended.

Maryland has made persistent attempts to halt dredging violations since 1941, but with little success until the 1946 season when a combination of airplane and boat patrol was much more effective. Over the past five years Maryland has expended about \$28,000 annually for a Potomac River patrol. Over the same period of time, Virginia patrolling costs in the river have amounted to about \$10,000 annually. The Commission believes that this sharing of financial responsibility is inequitable and not conducive of cordial relationships between the two states. It is strongly urged that Virginia immediately assume an equal part of the cost of adequate policing in the Potomac River.

Management of the river oyster resources has always been based on the premise that natural reproduction on the bars was intensive enough to provide a high level of abundance. The dredge was abolished since it was shown that its efficiency had removed most of the adult oysters and cultch from the bars. It is obvious that both spawning oysters and material for the attachment of larval oysters must be present on the bar for successful natural replenishment of the population. Experience in these and other states has demonstrated that even spawners and cultch on certain bars were not sufficient to maintain a high level of production. In such cases planting of seed oysters is the only practical step for maintaining production. The Commission has taken into consideration these factors in making its recommendations.

At the same time that the oyster industry in the Potomac River was declining with periodic partial recoveries, cer-

tain species of fish, more particularly shad and herring, were showing a declining catch and consequent loss of income to fishermen. Catch records of the U. S. Fish and Wildlife Service show that shad production in the Potomac dropped from 2,264,168 pounds in 1932 to 328,175 pounds in 1942 and probably has not increased since that time. This same trend holds for the herring fishery although it is not typical of the rock population either in the Potomac River or the Chesapeake Bay.

Rock catches declined seriously in the early 1930's. Following the hatch of rock in 1934 production increased and has remained at a higher level. This rise in catch paralleled the recovery of the rock population in the Bay waters of Maryland. V. D. Vladykov and David H. Wallace in their report on rock tagging in 1936 and 1937 showed that rock migrate from the Bay waters into the Potomac River and out again in the fall. They found further that a large part of the spring run of rock to the spawning grounds in the upper Potomac is composed of fish who have spent their previous summer, fall and winter in Chesapeake Bay and its tributaries.

It might be interesting to note that these investigations also discovered that the Potomac has its own school of rock which apparently never migrates outside the river in any appreciable numbers.

In 1943, 1944 and 1945 the spring runs of rock reached enormous proportions. Many new fishermen entered this fishery although the number of Marylanders was relatively small because of the limitation of licenses enacted by the Maryland Legislature in 1941. The Maryland Commission of Tidewater Fisheries then exercised its discretionary powers to grant additional licenses to Marylanders to correct the inequitable condition of uncontrolled fishing in Virginia and controlled fishing by Maryland in a river with a common right of fishery. Each year since that time Maryland has permitted anyone to license to fish in the Potomac.

It is obvious that such competition between the citizens of the two states on the Potomac is and will be most damaging to the fisheries. The Commission feels that prompt action is essential to correct this competitive condition.

4. Control by the Joint Authority Proposed Hereinafter

In view of these diversified problems the Commission believes that the joint authority proposed hereafter in managing fishing, crabbing and oystering in the Potomac River should have discretionary powers to: (1) Fix seasons, (2) specify gears, (3) regulate sizes of gears and length of nets, (4) strengthen the cull law, (5) control the taking of seed oysters, (6) issue licenses, (7) open and close areas, (8) carry on shell and seed plantings by a direct appropriation from the two states with power to make charges to recover cost of oyster and shell planting, and (9) to promulgate education programs to bring to the practical oystermen and fishermen of both states the essence of greater production and a more stable industry through progressive conservation measures.

CONTROL OF CHESAPEAKE BAY AND ITS TRIBUTARIES, INCLUDING POTOMAC RIVER BY JOINT AUTHORITY

It is recommended that a joint authority, to be known as the "Maryland-Virginia Chesapeake Authority", be created by the State of Maryland and the Commonwealth of Virginia by addition to or amendment of the Compact of 1785, with full jurisdiction and authority over (1) fin fishing and crabbing in the Chesapeake Bay and all its tributaries in Maryland and Virginia, with broad powers to rehabilitate the fin fish and crab populations in those areas, and to maintain the same at levels consistent with their potential productivity of fin fish and crabs in the best interests of the people of the State of Maryland and the Commonwealth of Virginia; and, in addition, (2) to rehabilitate the production of oysters in the Potomac River, and to maintain

such production by the possession and exercise of broad regulatory powers.

In the opinion of the Commission, it will be necessary for the legislative bodies of the two states to confer upon the joint authority the power to make rules and regulations, having the force and effect of law; these powers to be safeguarded in such manner as may appear necessary.

It is further recommended that the Tidewater Fisheries Commission of Maryland, and the Virginia Commission of Fisheries, or their successors, be required to enforce such rules and regulations at the direction of the joint authority and that necessary appropriations to this end, where necessary, be made to these agencies for this purpose.

The Commission further recommends that the Chesapeake Authority consist of seven members, three to be appointed by the Governor of Maryland, one of whom shall be the Chairman of the Tidewater Fisheries Commission, or his successor in office; three to be appointed by the Governor of Virginia, one of whom shall be the Commissioner of Fisheries, or his successor in office, and the seventh member to be named by the Governors of the two states, acting jointly, and in case of their inability to agree, the said seventh member shall be appointed by the President of the United States upon request of the two Governors. In order to give stability to the authority, it is recommended that the members be appointed for long terms, with the usual powers in the appointing authority to remove for cause.

Compensation, the Commission feels, should be on a per diem basis for each day the authority is in session, plus actual traveling expenses, except that no extra compensation should be received by the heads of the two state departments of fisheries.

Need for the Joint Authority

The Commission, in the limited time at its disposal to develop this report, feels that it is in no position to state

dogmatically that one control or another will increase production. However, it is our unanimous opinion that broad discretionary powers should be granted to the joint authority to promulgate rules and regulations on migratory Chesapeake Bay species.

The need for joint action is apparent when the fishery laws of the two states are examined together. In Virginia, for example, there is no legal length for a pound net. Presumably this matter is covered by the regulations of the U. S. Engineers in controlling navigation, but it must be remembered that the War Department is not a conservation agency. Wherever navigation and conservation are in conflict the Engineers make their decision on the basis of navigation. This is basically wrong and we cannot expect to have conservation if we are to depend upon non-conservation agencies to write the regulation.

Both Maryland and Virginia depend upon the U. S. Engineers to establish fishing lines in the Bay and its navigable tributaries. It is essential that both states grant powers so that the joint authority may work out with the fishermen the areas and lines within which nets should be placed.

We wish to reiterate again that joint control of the Bay fisheries is essential if we are to rehabilitate our fisheries and maintain them at a high level of sustained production. Practically every major species migrates across the state boundaries at least once or twice yearly. Both states have a responsibility to its own citizens and to the citizens of its neighboring state to provide adequate protection to fish stocks when they are within its state boundaries. The Commission does not wish for anyone to have the impression that they want to destroy commercial fishing. They believe strongly that the excess of every species should be removed for food and recreation, but that in every case adequate provision should be made for perpetuation of the species at the highest possible level.

As has been stated before, there must be a coordinated plan or regulations looking toward maximum production.

Coinciding with this administrative arrangement, the Commission believes that a comprehensive program of fishery research should be launched so that the administrators will have facts on which to base their decisions. Such a research program should be on an overall basis rather than study a single species as has been necessary in the past because of lack of funds.

It might be pointed out that a similar program of coordinated research and regulation has successfully restored halibut production on the Pacific Coast. This required an international treaty between the United States and Canada, but in spite of the inherent difficulties of such a situation outstanding results have been achieved.

Maryland and Virginia have failed to cooperate on Potomac River matters partly because management has been attempted by the legislative bodies of the two states which meet in alternate years, and are not; therefore, in a position to consult on mutual problems. It has been pointed out earlier that several acts have been adopted by one of the two states without concurrence of the other and only a few laws have been agreed upon.

With a joint authority, however, problems can be met when they arise, so that a crop of oysters can be harvested at the proper time, or shells or seed planted if such action is found to be necessary.

Neither legislature is willing to appropriate funds for oyster rehabilitation if there is to be no corresponding contribution from the other state. The Commission believes that this reluctance on the part of the two legislatures will continue so long as independent action is attempted. Joint control has been recommended by others who have studied the Potomac. Dr. Paul S. Galtsoff, In Charge, Oyster Investigation of the U. S. Fish and Wildlife Service, in a report in September, 1944 to the Atlantic States Marine Fisheries Commission stated, "In view of the fact that Maryland and Virginia have joint jurisdiction over the

fisheries of the Potomac, the establishment of a bi-state committee, . . . , to deal with difficult administrative problems of the Potomac River fisheries is considered necessary for the efficient management and conservation of its sea food resources."

In January, 1946, the Chesapeake Bay section of the Atlantic States Marine Fisheries Commission prepared a memorandum of their considerations of the Potomac problem which covered ten meetings of that body. They concluded, "A permanent joint Commission with power to adopt and from time to time change regulations, and with power to develop and carry out a joint restoration program for the oyster industry is clearly needed."

Annual Appropriation

The Commission recommends an annual appropriation by each state to the joint authority beginning as soon as both states have adopted these proposals to enable the Joint Authority to rehabilitate, regulate and control fishing and crabbing in the Chesapeake and its tributaries in Maryland and Virginia, and oysters in the Potomac River.

Funds to provide for this contemplated step are obviously necessary. For instance, in all scientific studies of the Potomac River, recommendations have been made for shell and seed plantings on depleted bars as the most rapid method to bring about rehabilitation. R. H. Luce in 1928 at the request of the two states examined Potomac Bars. In his report in 1929 he recommended that beds of spawning oysters be put down on each bar and clean shells be planted around the spawning beds. Luce also stated, "Whenever possible, seed oysters should be planted on those portions of bars which are not planted with spawning oysters or shells." These recommendations were not translated into action by the two states since neither state was willing to appropriate the necessary funds, . . . the benefits from which might accrue to citizens of the other state.

Some fifteen years later another survey was made of these same bars by Dr. David Frey, Oyster Investigator of the U. S. Fish and Wildlife Service. While he found the oyster population more extensive than in 1929 he stated, "A sustained increase in annual production can be brought about only by improving conditions on the various bars according to their individual needs; for it is apparent that all the bars in the river, differing as they do in intensity of setting, rate of growth of oyster, and amount of cultch present, cannot be treated alike. The sets occurring naturally in the river can be made of greater value to the industry by planting shells on those areas from Cobb Island to the mouth of the river shown by the survey to be deficient in cultch. Production on the bars from Heron Island to Lower Cedar Point could be materially increased and stabilized by planting seed oysters on areas with insufficient numbers of small oysters. Quantities of oysters resulting from the infrequent heavy settings in the former seed areas located above the Potomac River bridge could be sold either as seed or market oysters depending, on their size, or advantageously transplanted to bars further downstream, where faster growth and a better quality oyster would result."

Oystermen from both Maryland and Virginia have agreed that planting of clutch and seed was important in any oyster program for the Potomac. In view of the general agreement on the part of oystermen, oyster biologists and administrators alike, this Commission strongly urges the necessary legislation and appropriations to effectuate this part of the program.

Financing

The Commission recommends that the joint authority be granted the authority to make charges against the industry to defray the cost of planting and policing the oyster beds in the Potomac River until the oysters are harvested. The Commission has assumed that both states could justify an expenditure of public funds for a few years if adequate

provision is made to recover the costs of the operations. While Maryland has experienced difficulty in recovering the costs of planting within the framework of her present laws, it seems feasible to allow the joint authority sufficient latitude to insure against this eventuality.

Prohibition of Dredging in the Potomac River

The present law prohibits dredging in the Potomac River, and it is felt this should not be changed at the present time. The Commission recommends that the suggested joint authority should be granted discretionary powers to regulate gears used in removing oysters from the river so that dredging may be permitted in the future when the bars are rehabilitated. The history of the fishery shows that intensive dredging has reduced the population to a point where annual catch is extremely low. This has been true not only in the Potomac River but in the Bay waters in Maryland where unlimited sail dredging is permitted. Dr. Galtsoff, in his report of June, 1943 stated, "Depletion of oyster bars in the upper part of Chesapeake Bay is another example of the gradual exhaustion of natural resources under a system of "free" fishing. According to the estimate made by Edwin G. Baetjer of the Maryland Board of Natural Resources, the average production of oysters on the 130,000 acres of the so-called dredger's area in Chesapeake Bay has been reduced from 54 bushels to 4 bushels per acre, or less." In this same report Galtsoff discussing the Maryland oyster problem in the Bay stated, "Oyster bars, subject to intensive dredging, became depleted, and natural propagation of oysters could not keep pace with the rate of fishing. A general decline in production followed, and the yield of the largest oyster-producing area in the world diminished to only a fraction of what it was fifty years ago."

Depletion in the Chesapeake Bay oyster bars in Maryland has apparently progressed even beyond the deplorable conditions mentioned above, until a production of only

about one bushel per acre was attained during the 1946-1947 season.

It is realized that tonging is inefficient and that dredges are the efficient way to harvest oysters. However, the inefficiency of the tongs as compared to dredging allows a residue of oysters to remain on the bottoms for spawning purposes and the shells and undersized oysters can be successfully returned to the bars.

A number of persons, who have testified before the Commission, have claimed that a large percentage of the acreage of Potomac oyster bars is located in water too deep for tonging and therefore should be dredged. The Commission has investigated this claim and finds that about 15% of the acreage charted by Frey in 1942 is in water deeper than 18 feet. The proposed joint authority eventually may permit dredging in this zone at some future time when oysters are abundant. The oysters present on these bottoms in deeper water should be left undisturbed for the present as a source of spawners. This is particularly important while stocks of oysters are so reduced in the shallow water areas.

Cull Law Strengthened

It is recommended that the 5% cull law now in effect on oysters from the natural rocks in the Potomac River apply to all oysters produced from either public or private beds in the Potomac and its tributaries. Maryland laws now require that oysters must meet the cull law whether the oysters come from public or private beds. The law applies equally to the catcher, shipper, or packer and for this reason is comparatively simple to enforce. Virginia statutes on the other hand require only oysters from public bars to be culled to 5% shells and undersized oysters. This legislation presents a difficult enforcement problem, since the officer in most cases would be unable to determine whether uncultured oysters in a packers bin or on a buy boat came from a natural rock or from a planters leased grounds.

Many planters and public rock oystermen have agreed that such a cull law would be helpful for oysters taken from the Potomac River and its Virginia tributaries. In view of these facts it would appear logical for the Virginia legislature to enact necessary legislation on this subject.

Shortening of Oyster Season in Potomac River

The Commission recommends that the season for taking oysters should begin on October 15th instead of the present opening date of September 15th, with the joint authority to have discretionary power to extend or shorten the season in the future.

Experience has shown that oysters reach their peak of fatness in November and December. In most years oysters are not so fat in September and October, and if harvested give a smaller yield in pints per bushel. The same oyster if allowed to grow and fatten for another month or so will increase in volume, and will bring a higher price when marketed.

Some oystermen say that it is necessary to catch oysters during September and October since other oystermen might take the oysters, even though they realize this is unwise. As a result larger oysters are caught during the warm weather when they bring the lowest price, while the smaller sizes are taken later in the season.

Some persons in the industry argue that a general shortening of the season throughout the Bay would be a serious handicap to the industry, since markets would be lost to other areas if packers could not supply the trade immediately. This argument has little bearing on the Potomac oyster industry since other areas in both Maryland and Virginia are in production and could supply the early demand. Actually production in the Potomac River in the last two years has been only a small fraction of the oyster yield in our two states and would have little bearing on the market in its present depleted state.

NECESSITY FOR AMENDMENT OF OR SUPPLEMENT TO COMPACT OF 1785

It is self-evident that the principles embodied in the recommendations of this Commission cannot become effective except by a compact between the State of Maryland and the Commonwealth of Virginia, authorized by the General Assemblies of each and approved by the Congress of the United States of America. This Compact may properly take the form of an amendment or an addition to the Compact of 1785. Whatever its form, the amendment or addition should be broad enough in terms to confer jurisdiction, authority and power upon the joint authority to enable it to deal with all present and future phases of rehabilitation and maintenance of fin fish and crabs in the Chesapeake Bay and its tributaries and oysters in the Potomac River, without the necessity for recourse to the General Assemblies of Maryland and Virginia except to the extent necessary from time to time for such financial support as its program may demand. In the compact itself details of authority and operation should be avoided as far as possible so that opportunities open to the joint authority from time to time for development and conservation of the enormous seafood potentialities of the Chesapeake Bay area may not be circumscribed as a result of unelastic provisions made obsolete by changing times and conditions.

The amendments to the Compact shall continue in force and remain binding upon each compacting state until renounced by it. Renunciation of any or all such amendments must be preceded by one state sending to the other at least ten years notice by resolution of its legislative body of its intention to renounce any or all such amendments.

The Compact of 1785 has prevailed for more than 162 years. The steps here recommended may be equally as far-reaching in point of time if undertaken and carried on

in the spirit of comity which should always prevail between the State of Maryland and the Commonwealth of Virginia for the common good of their peoples.

In making this recommendation, it should be clearly understood that there is to be no change whatever in the existing compact between the two states, which is to remain in full force and effect.

The Commission expects to submit to the General Assembly of Virginia at its meeting in January, 1948, and subsequently to the Legislature of Maryland in January, 1949, a suggested amendment of the Compact of 1785 and such other legislation as may be necessary to make effective the proposals contained herein, if such proposals meet with the approval of the two legislative bodies. In preparing this legislation we hope to have the advice and counsel of the Attorney General of each state.

ACKNOWLEDGMENTS

The Commission wishes to express its appreciation to Mr. Wayne D. Heydecker, Secretary, Atlantic States Marine Fisheries Commission, Dr. Lionel L. Walford, Biologist, In Charge, Fisheries Investigations, U. S. Fish and Wildlife Service and Miss Luella E. Cable, Biologist, In Charge, Shad Investigations, U. S. Fish and Wildlife Service, who met with us to give the benefit of their views and studies of the Chesapeake fishery problem. The Commission is most indebted to Mr. Edwin Warfield, Jr., former Chairman of the Maryland Commission of Tidewater Fisheries for giving a comprehensive report on the Potomac River oyster problem and the condition of the fisheries of the Chesapeake Bay. Mr. Charles A. Lankford, Chairman, Virginia Commission of Fisheries, and Mr. John E. Clark, Chairman, Maryland Commission of Tidewater Fisheries have met regularly with the Commission and have made valuable and practical suggestions. The Commission wishes to thank these persons, as well as those who presented their views at the public hearings at Colonial Beach, Va., and

Baltimore, Md. Without the assistance and advice of all of these, this study could not have been completed.

The Commission is particularly indebted to David H. Wallace, Executive Secretary of the Maryland Tidewater Fisheries Commission, for his invaluable services in the study leading up to and in the formation of this report. His wide knowledge of the problems under consideration and his ability to clarify these problems for the Commission has made its work much lighter than would otherwise have been the case. The Commission wishes to express to Mr. Wallace its deep appreciation.

C. O'CONOR GOOLRICK, *Chairman*

ROBERT H. ARCHER,

TAYLOE MURPHY,

WILLIAM W. WILLIAMS,

WILLIAM F. HILGENBERG,

FREDERICK W. C. WEBB.

TABLE 1.

FISHERIES PRODUCTION IN MARYLAND AND
VIRGINIA FOR VARIOUS YEARS.

<i>Year</i>	<i>Maryland Pounds</i>	<i>Virginia Pounds</i>	<i>Total Pounds</i>
1901.....	82,975,000	378,184,000	461,159,000
1908.....	113,796,000	312,515,000	426,311,000
1920.....	59,531,000	571,219,000	530,750,000
1925.....	56,978,000	276,228,000	333,206,000
1930.....	71,098,000	245,294,000	316,393,000
1935.....	48,235,300	217,592,000	265,827,300
1940.....	51,084,800	269,651,000	320,735,800
1942.....	46,786,500	155,453,600	202,240,100

(Note) These totals cover all seafood produced by either states, including fish caught outside the Bay and landed at Maryland and Virginia ports, as well as oysters produced in the two states.

TABLE 2.

CHESAPEAKE SHAD PRODUCTION FROM 1888 TO 1946.

<i>Year</i>	<i>Maryland Pounds</i>	<i>Virginia Pounds</i>	<i>Total Pounds</i>
1888.....	4,868,000	7,057,000	11,925,000
1890.....	7,128,000	7,266,000	14,394,000
1891.....	6,225,000	6,498,000	12,723,000
1896.....	5,541,000	11,171,000	16,712,000
1897.....	5,800,000	11,529,000	17,329,000
1901.....	3,111,000	6,972,000	10,083,000
1904.....	2,912,000	7,420,000	10,332,000
1908.....	3,937,000	7,314,000	11,251,000
1909.....	3,253,000	6,030,000	9,283,000
1915.....	1,455,000	4,714,000	6,169,000
1920.....	1,867,000	7,294,000	9,161,000
1921.....	1,807,000	6,909,000	8,716,000
1925.....	1,260,000	6,104,000	7,364,000
1929.....	1,549,000	7,977,000	9,526,000
1930.....			
1931.....	1,195,705	7,291,164	8,486,869
1932.....	1,667,452	4,847,487	6,514,939
1933.....	1,374,315	4,816,714	6,191,029
1934.....	885,300	4,104,400	4,989,700
1935.....	800,000	2,882,900	3,682,900
1936.....	570,200	1,614,700	2,184,900
1937.....	404,800	3,085,800	3,490,600
1938.....	599,700	3,607,600	4,207,300
1939.....	624,600	3,558,800	4,183,400
1940.....	445,700	2,810,800	3,256,500
1941.....	534,200	2,125,300	2,659,500
1942.....	725,000	2,429,700	3,154,700
1943.....	765,102	*	*
1944.....	710,700	4,665,200	5,375,900
1945.....	617,000	5,285,000	5,902,000
1946.....	719,000		

* No statistical survey.

(Note) All data from U. S. F. W. S. except Maryland, 1943-46 which was from Md. Dept. of Research and Education.

TABLE 3.

HERRING PRODUCTION IN THE CHESAPEAKE BAY STATES
FROM 1901 THROUGH 1946.

<i>Year</i>	<i>Maryland Pounds</i>	<i>Virginia Pounds</i>	<i>Total Pounds</i>
1901.....	13,747,000	13,914,000	27,661,000
1904.....	14,485,000	14,604,000	29,089,000
1908.....	28,805,000	37,885,000	66,690,000
1909.....	23,637,000	27,798,000	51,425,000
1915.....	12,568,000	16,054,000	28,622,000
1920.....	7,072,000	16,665,000	23,737,000
1921.....	6,505,000	18,834,000	25,339,000
1925.....	7,701,000	17,910,000	25,611,000
1929.....	5,924,000	12,570,000	18,494,000
1930.....	5,741,307	15,387,018	21,128,325
1931.....	7,826,879	17,239,070	25,065,000
1932.....	7,552,695	13,852,493	21,405,188
1933.....	6,549,673	19,177,448	25,727,121
1934.....	5,233,400	5,846,200	11,079,600
1935.....	4,229,200	10,973,800	15,203,000
1936.....	3,368,900	8,688,700	12,057,600
1937.....	3,819,100	15,064,300	18,883,400
1938.....	5,396,600	17,690,900	23,087,500
1939.....	4,398,500	14,830,800	19,229,300
1940.....	4,678,700	11,433,300	16,112,000
1941.....	5,061,000	11,951,000	17,012,000
1942.....	3,422,600	9,257,900	12,680,000
1943.....	6,060,278	*	
1944.....	3,503,726	17,840,800	21,344,526
1945.....	2,583,493	14,461,600	17,045,093
1946.....	3,497,337		

* No statistical survey.

APPENDIX I

TIDEWATER FISHING LAWS
of
MARYLAND AND VIRGINIA

COMPARATIVE ANALYSIS
AS OF DECEMBER, 1945
Revised October 30, 1947

RESEARCH DIVISION
LEGISLATIVE COUNCIL OF MARYLAND
CITY HALL, BALTIMORE 2

FOREWORD

This analysis of tidewater fish laws of the States of Virginia and Maryland, prepared by Dr. Carl N. Everstine of the Research Division of the Legislative Council of Maryland, is designed to supplement and give factual background to the several current attempts to improve those laws.

For decades the legislatures of both states have considered the recurring problems of the Chesapeake Bay and the Potomac River. By common consent, no long-time solution has yet been found. Studies still are being made. In addition to the regular work of the Commission of Fisheries in Virginia and of the Department of Tidewater Fisheries in Maryland, the Atlantic States Marine Fisheries Commission is closely interested in the whole Chesapeake Bay area. Also, an ambitious study is now in progress by the Chesapeake Bay Fisheries Commission, appointed by the General Education Board of the Rockefeller Foundation. Finally, the General Assembly of Maryland at its 1945 session, by Joint Resolution No. 17, authorized and directed the Governor of that State to appoint a Commission to meet with a similar commission of the State of Virginia, to re-study the Compact of 1785 and the legislation enacted by both States, and to report on the wisdom of a joint interstate authority to control fisheries in the Bay area. The

Legislature of Virginia at the Special Session of 1947 passed House Joint Resolution No. 30 to provide for similar action on the part of that State.

There are comparisons here of the laws relating to tide-water fisheries in the waters of the two states. No attempt has been made to summarize *all* the laws on this subject, but only those topics and items have been emphasized on which there seem to be differences between the two states, though the differences are far more numerous than the similarities.

What this means is that fishermen in the two states, who perhaps in all other respects have comparable occupations, face varying legal conditions and requirements, according to which jurisdiction controls them. Perhaps there should be differences; perhaps not; at least the question should be explored.

The fish laws have been divided into a number of topics, and the items under each topic which are to be contrasted have been placed in juxtaposition. The numerals in parentheses are references to the respective codes. In Maryland the tidewater fish laws are in Article 39 of the Annotated Code (1939 Edition and 1947 Supplement); in Virginia the references are to section numbers of the Virginia Code (1942 Edition and 1946 Supplement).

The Maryland fish laws were considerably shortened and clarified by the revision of 1929. It is hoped that this analysis will aid in securing at least a greater uniformity in the laws of the two states relating to the fisheries in which both states are interested.

January 2, 1946

Revised October 30, 1947

ANALYSIS OF TIDEWATER FISHING LAWS OF MARYLAND AND VIRGINIA

(References in parentheses are to Article 39 of the Annotated Code of Maryland (1939 Edition and 1947 Supplement) and to the section numbers in the Virginia Code (1942 Edition and 1946 Supplement)).

Residents and Non-residents

Maryland

A resident is inferentially described as any person who is a bona fide citizen or landowner (27).

No one who is not a bona fide citizen or landowner of this State is to fish in the tidal waters of this State with nets of any description. The provisions of this section are not to apply to the catching of eels (27).

Maryland laws do not provide specifically for Menhaden.

Virginia

No person is a non-resident who has actually resided in the State 12 months next preceding the commission of the offense with which he is charged and the burden of proof as to residence is on the individual (3186).

Any resident desiring to take fish with any device other than a hand line in any of the tidal waters is to make application for a license (3158). Licenses for nets and water craft are to be issued only to resident persons, firms and corporations (3179).

Any non-resident person, firm or corporation may be licensed to take Menhaden with purse nets within a specified portion of the three-mile limit off the sea coast of Virginia, for the purpose of converting the same into oil, fish scrap, fish meal or manure. Except in this respect, and also as a stockholder in a domestic corporation, no non-resident

Maryland

Maryland has no such affirmative prohibition.

Any resident of Maryland between the ages of 12 and 65 must obtain a crabbing license in order to take crabs (105).

Maryland has no such specific provisions in its Potomac River laws. There is an exception in favor of fishing with hook and line in the section which requires every commercial fisherman in the State to be licensed (28).

Virginia

is to be interested in such fisheries (3159, 3176).

Similarly, no resident is to be interested with any non-resident for such purposes except as stockholder in a domestic corporation (3176).

Any person not a resident who catches fish in tidal waters in any way other than by line, rod or pole held in hand is guilty of a misdemeanor. Any resident who enters into any agreement with intent to defeat the object of this section also is guilty of a misdemeanor. Exception: a permit may be issued to any resident or non-resident for the taking of German carp in certain waters (3185).

Any resident of the State desiring either to catch crabs or to buy or market them for packing or canning must obtain a license (3265).

No one is to catch fish from the waters of the Potomac River unless he is a citizen of Maryland or of Virginia but there is an exception which seems to permit non-residents to fish in the Potomac with hook and line (3299).

Licenses

Section 60 concerns licenses issued up to December 1, 1941. It therefore is obsolete.

Maryland

Sec. 60A, as amended by Ch. 742 of 1947, requires licenses to be issued to persons who had them prior to 1942 but who did not renew them prior to December 1, 1941, because of (a) being in government service, (b) working in an essential war industry, or (c) some physical disability. Applications were required to be submitted by September 1, 1947.

Prior to December 1, in each year, the Commission of Tidewater Fisheries is to estimate the quantity of marketable fin fish of every species (except eels) that may be available during the succeeding license year and of the number and types of nets that may be profitably employed without injury to the fishery. If a number of nets is to be permitted greater than during the current season, the Commission shall so advertise and accept applications therefor up to January 1. At that time, the Commission shall issue such additional licenses, to be chosen by lot from among the applicants. The Commission by regulation shall fix the number of nets that may be licensed to any one applicant (62). Amended by Ch. 741 of 1947.

Licenses are renewable annually to the persons who

Virginia

Any resident person, firm or corporation entitled by law to fish in Virginia waters may get a license to take fish for the purpose of manufacturing them into oil, fish scrap, fish meal or manure (3159).

Every such person who shall apply for a license to take food fish may get it upon paying the application fee (3160).

Virginia permits anyone to get a license upon applica-

Maryland

have had them during the past year, provided application for renewal is filed by December 1, unless the license has been revoked or suspended for cause. Any person who shall fail to make bona fide use of his license during two consecutive license years may not thereafter get a renewal, except that this provision is not to apply to any person who by reason of service in the armed forces or by reason of conditions arising from the war emergency was unable to use his nets (63).

Fyke or hoop nets more than 40 yds in length, wherever used, have a license fee of \$1.00 each.

Fees for *pound nets* are as follows: in the Chesapeake Bay, \$5.00 for the first net and \$1.00 for each additional net; in the tributaries of the Chesapeake Bay, \$2.00 for the first net and \$1.00 for each additional net; in Chincoteague, Sinepuxent, Isle of Wight and Assawoman Bays and their tributaries and in the Atlantic Ocean, \$5.00 for each net (63B).

Haul seines are licensed for these fees; in Chesapeake Bay and tributaries, \$3.00 for each net; in Chincoteague, Sinepuxent, Isle of Wight and Assawoman Bays

Virginia

tion and the payment of the fee (3159, 3160).

On each *fyke net*, head, weir or similar device, \$1.50 (3160).

Pound nets are licensed at \$3.50 each (3160).

On each *haul seine* operated by a motor boat, power not exceeding 5 horsepower, the fee is \$5.00. On each haul seine hauled by a windlass with power other than hand

Maryland

and their tributaries and in the Atlantic Ocean, \$5.00 for each net (63B).

The license fee for *anchored gill nets* is \$3.00 for the first thousand feet and 50¢ for each additional thousand feet or fraction thereof (63B).

The fees for *drift gill nets* are as follows: in Chesapeake Bay and in Chincoteague, Sinepuxent, Isle of Wight and Assawoman Bays, and their tributaries, and in the Atlantic Ocean, \$3.00 for each 500 yds. or fraction thereof. In the tributaries of the Chesapeake Bay, \$1.00 for each 500 yds. or fraction thereof (63B).

Virginia

or steam, \$30.50. On each haul seine operated by steam power, \$76.00. On each sturgeon sweep net or haul seine, \$38.00 (3160).

For each *float or stake gill net* of 600 ft. in length and under, \$2.00 and for each additional thirty feet or fraction thereof, 10¢ (3160).

On each *thresh net*, *skirt net* or similar device, \$2.00. On *catfish or eel pots*, not exceeding five in number, \$1.50 on each additional pot on the same license, 10¢. On each fish trot line, \$1.50. On each person using a fish dip net, \$1.00. On each *drift haul net*, attended by a motor boat exceeding five horsepower, \$30.50. On each *sturgeon gill net* or *trammel net*, \$5.00. The Commission of Fisheries may establish a license with a fee ranging from \$1.00 to \$100.00 for any device used for taking fish not specifically mentioned above (3160).

Maryland

The Commission of Tidewater Fisheries may revoke or suspend licenses for periods of not less than ten days upon any of the following grounds: (1) making a false statement in the application; (2) conviction for a violation of this Article; (3) a violation of any regulation of the Commission; (4) failure to make prescribed reports (63C).

Any license may be transferred, when accompanied by bona fide sale of equipment if the buyer is otherwise eligible to be licensed. There is a transfer fee of \$5.00 (63D). Amended by Ch. 741, 1947.

Virginia

There is a license tax of \$8.00 for salting or buying and *packing herring* or *packing fish roe*.

Trawl nets or similar devices for use along specified parts of the Atlantic Ocean, south of Cape Henry, may be issued for a fee of \$25.00 for each boat (3169).

A violation of the laws for taking Menhaden shall be accompanied by a revocation of the license for the remainder of the season (3167).

The Commission of Fisheries may revoke any license for violation of the seafood laws (3146b, enacted by Ch. 302 of 1946).

Seasons

Open season for *shad* and *herring* is as follows:

Lower Chesapeake Bay, Feb. 1 to May 26, inclusive (59a).

Upper Chesapeake Bay, Mar. 15 to June 5, inclusive (59b).

It is unlawful to catch any *white shad* or to have in possession any so caught between the first day of June and the 15th day of October (3173).

Maryland

Chincoteague, Sinepuxent, Isle of Wight, and Assawoman Bays and in the Atlantic Ocean, Mar. 1 to May 26, inclusive (59c).

Potomac River, Mar. 1 to May 26, inclusive (59d).

It is unlawful to have *shad* or *herring* in one's possession after June 6 (59e).

If Virginia shortens its season for catching *shad* and *herring* by ten days, or takes such action contingent upon action by the State of Maryland, shortening its season for the catching of *shad* and *herring* as provided in this section by five days or less from the end of such season, then the season for catching *shad* and *herring* shall be shortened in each case by five days from the end of such season (59f).

Black Bass may be caught with rod, hook and line during the months of July, August, September, October and November (75, as amended by Ch. 751 of 1945).

Pike may be taken during the months of April, May and June (75, as amended by Ch. 1069 of 1945). (Chs. 751 and 1069 of 1945 were declared both to be valid, in a declaratory judgment by Judge Joseph Sherbow of the Supreme Bench of Baltimore City, January 4, 1946.)

Virginia

The fishing season for *shad* and *herring* in the Potomac River begins March 1 and ends June 1 (3300).

Maryland

It is unlawful to catch or have in possession any *walleyed pike* (Susquehanna salmon) except from March 15 to November 30 (77A, enacted by Ch. 779 of 1947).

The closed season for *hardshell crabs* is from the first day of December to the first day of May, except that in Worcester County the closed season runs from the first day of December to the first day of April (103, 104). The Department of Tidewater Fisheries may (and generally does) add November to the closed season (110).

The Commission of Tidewater Fisheries may regulate the catching of *sponge crabs* (108).

Terrapin are not to be taken between April 1 and October 31. No person shall have in his possession between these dates any terrapin taken either in Maryland or elsewhere (117).

Virginia

It is unlawful to take *Menhaden* fish to be manufactured into oil, fish scrap, fish meal (sic) or manure between the first day of December and the last Monday in May (3175).

Scrapes or dredges are not to be used for taking *crabs* between April 1 and December 1, except that the Commission of Fisheries may, in its discretion open any season on November 16 and extend any season to April 16 (3265).

Sponge crabs may be taken from April 1 to June 30, except that the Commissioner of Fisheries may in his discretion close or shorten this season (3265).

Size of Commercial Fish

Maryland

No person shall catch or in any manner take or kill, sell, offer to buy or sell or expose for sale or have in possession:

Rock, otherwise known as *Striped Bass*, less than 11 inches in length or weighing more than 15 lbs. (In the Susquehanna River above Hog Back Shoals, *Striped Bass* weighing more than 15 lbs. may be taken with hook and line, if not offered for sale.) (58).

Sea Trout or *Weak Fish* less than 8 inches (58).

Bass, large or small mouth, less than 10 inches (58).

Black Bass, less than 10 inches (77).

Butter Fish, less than 6 inches (58).

Sturgeon, weighing less than 25 lbs. (58). The Commission of Tidewater Fisheries has a regulatory power covering the taking of *Sturgeon* (58A).

Virginia

It shall be unlawful to take, catch or have in possession:

Rock-fish less than 12 inches in length. This was changed from 10 to 12 inches by Ch. 229 of 1944 (3163). Ch. 302 of 1946 makes it unlawful to take any rock fish weighing more than 25 lbs.

Trout less than 9 inches (3163).

Black Drum Bass, less than 12 inches (3163).

Red Drum Bass, less than 12 inches (3163).

Sea Bass, less than 5 inches (3163).

Black Bass, less than 8 inches (3163).

Star Butter Fish less than 6 inches (3163).

Any other *Butter Fish*, less than 7 inches (3163).

Sturgeon less than 5 ft.

Maryland

Perch, white or yellow, less than 7 inches (58).

Cat Fish, less than 7 inches (58).

Pike, less than 14 inches (58 and 77).

Taylor or Blue Fish, less than 8 inches (58).

Hardheads or Croakers less than 7 inches (58).

Virginia

White Sand Perch, less than 5 inches (3163).

Yellow or Ring Perch, less than 7 inches (3163).

Blue Nose Perch, less than 7 inches (3163).

Catfish, less than 9 inches (3163, as amended by Ch. 302 of 1946).

Blue Fish, less than 8 inches (3163).

Croakers (Grumblers) less than 7 inches (3163).

Spot, less than 6 inches (3163).

Bonito Fish, less than 20 inches (3163).

Hog Fish, less than 6 inches (3163).

Mackerel, less than 10 inches (3163).

Mulletts, less than 6 inches (3163).

Pompanos, less than 7 inches (3163).

Porgy or Moon Fish, less than 10 inches (3163).

Roundhead or Sea Mullet, less than 7 inches (3163).

Sheephead, less than 12 inches (3163).

Mud Shad, less than 7 inches (3163).

Maryland

Measurements are from the tip of the nose to the end of the caudle fin or tail (58).

Maryland has no such provision.

Virginia

Bream, less than 8 inches (3163).

Hickory Shad, or any other *Shad*, less than 10 inches (3163).

Measurements are from nose to tip of tail (3163).

Any prohibited fish is to be culled from the net and returned to the water before being placed inside the boat. Any fisherman or dealer having as much as 10% of the bulk of his catch under the minimum sizes prescribed is to be deemed guilty of violating this section. Except as to *Trout*, in which case he is guilty only when he is found to have as much as 10% of the bulk of his catch under the minimum size herein prescribed as to *Trout* (3163).

Method of Fishing

It is unlawful to fish with any net whose size of stretched meshes (allowing a reasonable tolerance for shrinkage) is less than:

Pound net, 2¼ inches (30B).

Haul seine, 2½ inches (30B).

Gill net, 2½ inches (30B).

Fyke or hoop net, 2½ inches (30B).

It shall be unlawful for any person to use:

Pound net, head or pocket or *mullet net* (over 200 yds. long) having a smaller mesh than 2 inches stretched measure after having been tarred. No *haul seine* or *mullet net* is to be over 500 yds. in length unless spe-

Maryland

Nothing in this section is to apply to the catching of eels.

It is unlawful to catch *fin fish* by the use of a *gig* or *gig iron*, by the use of any *purse net*, *buck net*, *beam trawl*, *otter trawl*, *trammel net*, *troll net* or *drag net* (28A).

It is unlawful to catch *fin fish* for commercial purposes (except eels) by the use of any net or other device except hook and line, dip net operated by hand or fyke or hoop net less than 40 yards in length without a license (28B).

A *pound net* with an overall length not in excess of 40 yards is included within the above exception, except that no person may use more than five of them (28B, as amended by Ch. 867 of 1947).

It is unlawful to license any nets or other devices for catching *fin fish* for commercial purposes except: pound net, haul seine, and fyke or hoop net more than 30 yards in length and gill net more than 100 yards in length (28C).

Virginia

cially authorized and if it is over 200 yds long, it shall not have meshes less than 3 inches stretched measure. No *mullet net* shall be deeper than 40 meshes (3162).

Maryland

It is unlawful to drag any seine by the use of a vessel or boat or to use any *haul seine* more than 600 yards in length, except that if the State of Virginia shall take any action making it unlawful to use any haul seine more than 500 yards in length, this latter figure shall then prevail in Maryland. Enacted by Ch. 709, 1941 (30A).

It is unlawful to empty a seine upon the beach so as to leave the small fish to perish, or in any water less than 12 inches deep (30b).

It is unlawful to use any *pound* or *stake net* or *anchored gill net* or *fyke* or *hoop net* or any line of such nets which has a greater length than one-third the distance across the river, creek, etc., where it is set or which may impede or obstruct navigation or block the main channel thereof (29a, 30A).

No *pound net* or *stake net* or *anchored gill net* is to be set closer than 400 yds. to another such net (29b, 30A, b).

Between successive pound or stake nets in the same row, unobstructed intervals of at least 200 ft. are to be maintained. No single line of *net stakes* is to have a

Virginia

It is unlawful to use any *drift* or *haul seine* exceeding 500 yards in length unless specially authorized by the Commission of Fisheries. This provision antedates the Maryland Law (3160).

It is unlawful to use any net or nets across any river, creek, etc., for a greater distance than one-fourth the width thereof or so as to impede the run of fish or to interfere seriously with navigation (3165).

No net is to be set so as vitally to interfere with any net already set (3165).

Maryland

length greater than from 1,000 to 1,500 ft. depending upon locality (29c).

All stakes must project at least 3 ft. above the water at high tide (29d).

The use of *anchored gill nets* is prohibited in a specified portion of the northern part of the Chesapeake Bay (53).

It is unlawful to use any *troll net* or *drag net* (28a).

Virginia

It is unlawful to use any *troll* or *trawl net*, *drag net* or similar device or to buy sell or offer for sale any fish taken in the waters of Virginia or under the joint jurisdiction of Virginia with any such device.

Trawling will be permitted along the Atlantic Coast from Cape Henry down to the North Carolina State Line during a specified portion of the year (3169).

When fishing with a *purse net* to catch fish for manufacturing into guano, fish meal or oil, it is unlawful to catch food fish to an amount greater than one percent. of the whole catch, without immediately opening the net and setting loose any such food fish (3167).

No person shall use any *seine* or set any *gill net*, pound net or fishing device of any kind within the bounds of any regularly

*Maryland**Virginia*

hailed fishing landing or opposite to or within a $\frac{1}{4}$ mile of any part of the shore of any such fishery (3174).

Fishing Laws having only a local application may be found in the following sections:

*Maryland**Virginia*

Anne Arundel County....	31	Middlesex County	3172
Baltimore County (Ch. 710, 1947)	32	Rappahannock River	3172a
Caroline County	33	Mattaponi, Pamunkey and York Rivers.....	3182
Carroll County	34	Elizabeth River	3183
Cecil County	35		
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Charles and St. Mary's Counties	37		
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Kent, Queen Anne's and Talbot Counties (Ch. 680, 1947)	42		
St. Mary's County.....	43		
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Potomac River

General Note:

The basis for all legislation concerning the Potomac River by the states of Maryland and Virginia is the Compact of 1785, which was an agreement between them covering not only fisheries, but also the rights of riparian landowners, the erection and maintenance of lighthouses and buoys, piracies and other crimes and offenses, attachment of vessels for debt, traffic across the inter-state boundary, etc.

Part of the seventh agreement in the Compact was that "the right of fishing in the River shall be common to, and equally enjoyed by, the citizens of both states . . ." The eighth agreement was that "all laws and regulations which may be necessary for the preservation of fish . . . shall be made with the mutual consent and approbation of both states."

The final agreement was that the Compact should be laid before the legislatures of both states, and, if confirmed and ratified by each, "never to be repealed or altered by either without the consent of the other." Both legislatures adopted it in 1785, by Ch. 1 of the Maryland Acts of 1785 and Ch. 17 of the Virginia Acts of 1785.

It has been generally agreed that the Compact imposes at least a strong moral obligation, and perhaps a legal obligation as well, to have the Potomac River statutes identical. This is not now the case, for there are a number of variations, listed below.

Maryland

The concurrent laws are contained in sections 65 to 74, inclusive. They are generally similar to those of Virginia.

Maryland does not permit *non-residents* to fish with hook and line in the Potomac River. However, by a law applicable to the entire

Virginia

The concurrent laws are contained in Sections 3299 to 3305b. They are generally similar to the Maryland laws.

No person may take fish from the waters of the Potomac River except by hook and line unless he is a resident of Maryland or of Vir-

Maryland

State it excepts hook and line fishing from the requirement for obtaining a license (28).

The open season for *shad* and *herring* in the Potomac River is from March 1 to May 26, inclusive (59d).

Virginia

ginia. Presumably, therefore, the *non-residents* may fish in the Potomac with hook and line (3299).

It is unlawful to capture or kill any species of fish known as Black Bass, Green Bass, Chub, Crappie, Calico or Strawberry Bass by means of any haul seine, drag net, pouch net or any other device hauled from and landed on the shore or hauled from any other place or contrivance and landed on the shore or elsewhere in any of the waters tributary to the Potomac River (3184).

The open season for *shad* and *herring* in the waters of the Potomac is from March 1 to June 1 (3300). It is unlawful to take any white shad from any Virginia waters, including the Potomac River, between June 1 and October 15 (3173).

No person shall use any *seine* or *gill net* within the bounds of any regularly hauled fishing landing or opposite to any part of the shore of a fishery between March 1 and June 1 in each year without the permission of the owner. No person shall fish with any seine or net between 5 A. M. Sunday and 5 A. M. Monday. This provision is preceded by a "whereas clause" which

Maryland

The use of any *purse* or *buck net* or any similar destructive device is absolutely prohibited in the waters of the Potomac River. This statute was enacted by Ch. 382 of 1933 with the proviso that it should not become effective until a similar act is enacted by Virginia (73).

The use of any *beam trawl*, *trammel net*, *troll net* or any similar device is absolutely prohibited in the waters of the Potomac River or any of its tributaries. This section is not to be construed as prohibiting seine hauling and the use of pound nets or gill nets as heretofore permitted (Enacted by Ch. 289 of 1924) (67).

Virginia

states that Maryland had already taken similar action and it is followed by the provision that it is to remain in authority during the existence of a similar law in Maryland (3301).

It is unlawful to use any *beam trawl*, *trammel net*, *troll net* or any similar device in any waters of the Potomac River or any tributary. This statute was enacted by Ch. 78 of 1926. It has the proviso that it shall become effective upon the proclamation that a similar act has become effective in Maryland. However, the Maryland statute antedates the Virginia statute by two years (3305a).

During March, April and May no one shall fish in the Potomac River or any of its tributaries with *gill nets* or *seines* or any kind other than such nets or seines as may be laid out from and hauled to and landed upon the shore; nor shall any per-

*Maryland**Virginia*

son with gill nets or seines of any kind fish in the Potomac River or its tributaries from June 1 until October 20. Nothing in this section is to prevent a bona fide citizen of the counties bordering on such waters from fishing the shores they own or occupy as they have hitherto been in the habit of doing. This law is to be in force during the existence of a similar law in Maryland (3303).

In Virginia, it shall not be lawful to catch or kill any black bass, green bass, pike (or pickeral) or walleyed pike (commonly known as salmon) in the Potomac River between April 15 and June 1 nor to catch or kill any of said species at any time during the year, save only with rod, hook and line or dip net. Trot lines are forbidden. This section is applicable only above Little Falls, near Washington, and it shall not be effective unless similar laws are in force both in West Virginia and Maryland (3305).

Conservation

The Commission of Tidewater Fisheries is to inspect all tidal waters with the view to stocking them with such food fish as in their judgment should be most

The Commission of Fisheries is authorized to establish and maintain hatcheries for the propagation of fish and to cooperate with the United States Bureau of

Maryland

advantageous. The Commission is authorized to erect and maintain fish *hatcheries*, ponds and rearing stations for the purposes of propagation of salt water or anadromous fish (3).

By an act of 1929, power was given to the Conservation Commission to investigate the *pollution* of any waters and to require the abatement of such conditions. Nothing in this authorization was to restruct or modify the jurisdiction of the State Board of Health (17).

Virginia

Fisheries in this work (3148, 3152).

Chapter 114 of 1944 sets up the Virginia Fishery Laboratory, under the control of the College of William and Mary, for the general purpose of studying the seafood industry as a whole (3148a).

The Commissioner of Fisheries may place buoys, stakes, etc., so as to keep open a continuous passage-way from the waters of the ocean and the Chesapeake Bay to any *spawning locality* (3170).

Harming Fish and Fisheries

It is unlawful to place any *obstruction* at the mouth of any creek or inlet so as to prevent fish from having free passage to and from such waters (15).

No person shall place in any of the waters of the State any lime, poison, acid, sawdust, shaving or other

It is unlawful to kill any fish by means of *explosives, drugs or poisons*. Also, it is unlawful to sell or offer for

Maryland

substance deleterious to or destructive of fish life or use any dynamite or other explosive substance except for bona fide engineering purposes (18).

It is unlawful to whip or beat any waters with poles or sticks for the purpose of driving fish into nets. Two counties are excepted (19).

No boat shall anchor or stay in any fishery at any time during the shad and herring season unless compelled to do so by stress of weather, otherwise it shall depart within a half hour when so ordered (21).

Any vessel which maliciously or negligently sails through a seine shall be liable to damages (22).

It is unlawful willfully or maliciously to put any stake, log, stone, ballast, or other obstruction in the berth or haul of any fishery (23).

Virginia

sale any fish so killed whether they were killed in Virginia or elsewhere (3184).

It is unlawful to use fish berries, lime or giant powder, dynamite or any other substance for the destruction of fish or knowingly to cast any noxious substance into any water where fish or fish spawn may be destroyed, or to place or allow to pass into the water any sawdust, ashes, lime, gas, tar or refuse of gas works injurious to fish. There are several counties excepted from the sawdust provisions above (3305(43)).

Enforcement

Maryland

Upon receiving information under oath or affirmation, any justice of the peace can issue a warrant for the *arrest* of any offender and for the seizure of his equipment. If the name of the offender is not known, the warrant may describe him simply as the person committing the offense (8, 9). However, the common law of arrest in Maryland permits the officer to arrest for a misdemeanor committed in his presence without securing a warrant.

It is provided generally in the penalty clauses that the equipment of any offender is to be *forfeited*. The procedure for the sale of such equipment and the disposition of the proceeds is outlined in Sections 10 to 12. While differing from the Virginia procedure, it accomplishes the same result so far as the offender is concerned.

All justices of the peace in the county where the offense was committed have *jurisdiction* to hear the case. If it was committed on the waters of the Chesapeake Bay, any justice of any county in any court bordering on the Bay has jurisdiction, except that the nearest or most

Virginia

Any person found violating any of the fish laws may be *arrested* with or without a warrant and his equipment seized (3150).

It is provided generally in the penalty clauses that the equipment of any offender is to be *forfeited*. The procedure for the sale of such equipment and the disposition of the proceeds is outlined in Sections 3366-3377. While differing from the Maryland procedure, it accomplishes the same result so far as the offender is concerned.

Any person arrested may be taken before a "trial justice" for trial (3150). The circuit courts and the trial justices for the several counties adjacent to the waters in which any offense is committed have concurrent *jurisdiction* over every such offense (3187).

Maryland

accessible justice of the peace is to hear the case (13).

Offenses committed on the *Potomac River* may be punished by any of the magistrates or courts having criminal jurisdiction of the State of which the offender is a citizen (68).

Any offender against whom any justice of the peace renders a judgment may *appeal* to the Circuit Court of the County within ten days, giving bond equal to the amount of the fine imposed, plus the value of the property seized (14).

In enforcing the *Potomac River* laws, the legal authorities of each state may pursue an offender beyond the boundaries of either state upon navigable waters and arrest him whenever found upon such waters (68).

Virginia

Offenses committed on the *Potomac River* may be punished by any of the magistrates or courts having criminal jurisdiction of the State of which the offender is a citizen (3299.7).

Appeals from forfeiture cases are provided (3376).

Police officers of both states have a right of *hot pursuit* into the territory of the other state in order to complete an arrest. This section is not to be effective until similar legislation is enacted in Maryland. This section was enacted in 1940 (3150a).

In enforcing the *Potomac River* laws, the legal authorities of each state may pursue an offender beyond the boundaries of either state upon navigable waters and arrest him whenever found upon such waters (3299.7).

Any officer arresting an offender may receive from the offender such amount as

Maryland

The closed season for hardshell crabs extends from December 1 to May 1, except that in Worcester County it extends from December 1 to April 1 (103, 104). In addition when in the interest of conservation it is found advisable, the month of November also may be added to the closed season except in the waters of Worcester County (110).

Any resident of Maryland between the ages of 12 and 65 can get a crabber's license for \$2.00, plus a 25¢ fee to the clerk of the court. This license covers generally crabbing within the limits of the county where granted. With some excep-

Virginia

may be agreed upon between them as a discharge from all legal proceedings against the offender. The amount so agreed upon may not be less than the minimum fine imposed for the offense. Any such agreement is to be in the nature of a *compromise* and is not to be used as evidence in any proceeding for such violation.

Crabs

No scrapes or dredges shall be used between April 1 and December 1. The Commission of Fisheries, when in its judgment it is deemed advisable on account of weather conditions and not contrary to the public interest, may open any season on November 16 and extend any season to April 16. This sub-section is not to apply to the waters of the Chesapeake Bay or Hampton Roads nor to the ocean side of the Eastern Shore nor to the taking of soft crabs (3265(8)).

Any resident of the State desiring to catch crabs for market or profit, or to buy or market crabs for picking or canning is to get a *license*.

For catching soft crabs, otherwise than by dip nets, or hard crabs or peelers with net, ordinary trot line,

Maryland

tions, no one may catch crabs for market outside the waters of the county in which he resides. It covers the catching of crabs by any of the methods now used, including scrape nets, dip nets or trot line (105). Persons over 65 or under 12 years of age are not required to purchase a license.

Virginia

hand rake or hand scrape, pushed or pulled or with any device other than dip net or hand line, \$2.50 (3265(1)).

For catching crabs with *patent trot lines*, \$10.50, providing that no steam or motor boat shall be used in catching soft crabs and provided further that ordinary trot lines or patent trot lines are unlawful in specified waters (3265(2)).

For catching blue crabs with *crab pots*, \$10.50 for any number of crab pots up to 50. No person may employ more than 50 crab pots nor secure more than one such license. However, any person having a patent trot line license may fish 50 crab pots without securing a crab pot license, or any person have a crab pot license may fish patent trot line without securing a patent trot line license. After January 1, 1945, no crab pot shall have wire or thread of a size less than $1\frac{1}{2}$ inches (3265(2½)).

For each *sailboat* used for catching hard crabs with scrapes or tongs and for each *power boat* under 32 ft. in length used for the same purpose, \$5.50 (3265(3)).

For each *power boat* over 32 ft. in length used for catching hard crabs with scrapes or dredges, \$26.00 (3265(4)).

Maryland

For picking, canning, packing or shipping cooked hard or soft crabs or crab meat, \$10.00.

For *selling, marketing or shipping* live hard or soft crabs by barrel or crate, \$5.00. Any person licensed to ship or pack crabs needs no other license (107).

It is unlawful to catch soft shell crabs in the *Patuxent River* by net or seine other than net or seine with handle attached, without paying a license fee of \$25.00 (106).

The Commission of Tidewater Fisheries may by regulation permit the catching of *sponge crabs* and control their canning, packing, etc. Enacted by Ch. 766 of 1941, before which time the taking of *sponge crabs* was by statute unlawful (108).

It is unlawful to catch *hard crabs* measuring less than five inches across the

Virginia

For each *picking or crating house*, \$11.00 (3265(5)).

For each canning and packing house, \$26.00 (3265(6)).

For each *boat used in buying* crabs or for each person or firm engaged in marketing hard crabs by barrel or crate, \$5.50. However, no person who is licensed to catch crabs need procure any further license for marketing or shipping his own catch. Also any person who has a license for a boat under sub-section 5(sic) hereof may use the license for taking hard crabs with patent trot lines or with any other device allowed to be used under this section. (3265(7)).

It is lawful to catch *sponge crabs* from April 1 to June 30, except that the Commissioner of Fisheries when he deems it in the interest of conservation may close or shorten this season (3265(11)).

It is unlawful to catch a *hard crab* which measures less than 5 inches across the

Maryland

shell from tip to tip of spike (109).

It is unlawful to catch any *peeler* measuring less than 3 inches across the shell from tip to tip of spike (109).

It is unlawful to take any *soft crab* measuring less than 3½ inches across the shell from tip to tip of spike (109).

No person shall catch any *fat crab* or any crab known as snot crab or greencrab or buckram crab (109).

The Commissioner of Tidewater Fisheries may, by regulation, *restrict the catching* of crabs or the methods by which they may be taken. He may close or open any specified area, prohibit or restrict *devices* used for the taking of crabs and may establish seasons. He may establish minimum size limits for hard, soft and peeler crabs. He may regulate the taking and possession of fat crabs, snot crabs, green or buckram crabs.

Enacted by Ch. 707 of 1943 (110A, 110B) Ch. 727 of 1947 permits the use of crab seines, not exceeding 50 feet in length, in Anne Arundel County. (Present regulations permit the use of crab pots in certain Maryland waters. A license costs \$10, and covers 32 crab pots.)

Virginia

shell from tip to tip of spike (3265(9)).

It is unlawful to take any *peeler* measuring less than 3 inches from tip to tip of spike (3265(9)).

It is unlawful to take any *soft crab* measuring less than 3½ inches from tip to tip of spike (3265(9)).

The Commissioner of Fisheries may regulate or prohibit the use of *crab pots* on the ocean side of the Eastern Shore and inside the headlands of the creeks on the Chesapeake Bay side of the Eastern Shore (3265(2½)).

The Commissioner of Fisheries may close or shorten the *season* for taking sponge crabs (3265(11)).

Maryland

The use of an engine of any kind on a *boat* engaged in scraping or scooping crabs is permitted. No more than two scrapes may be used on any such boat and no scrape may exceed 42 inches in width. This section does not apply to certain specified waters (111).

Crabs may be taken by *scrape*, dip net and trot line and in no other manner except that in Kent and Queen Anne's counties soft crabs may be taken with a hand drawn net scrape. This section shall not apply to certain specified waters. Enacted by Ch. 408 of 1941 (111A).

The Commission of Tidewater Fisheries, acting jointly with the Virginia Commissioner of Fisheries, may regulate the taking of crabs in the *Potomac River* and may reserve or close any part or all of the river. Enacted by Ch. 796 of 1941 and not to be effective until a similar act becomes effective in Virginia (113A).

It is unlawful to possess, sell or transport any spawning *lobster* measuring less than $3\frac{1}{2}$ inches from the rear end of the eye socket to the rear of the body shell. Enacted by Ch. 173 of 1945 (113B).

Virginia

Power boats are licensed for scraping or dredging with no restrictions as to number and size of scrapes (3265(4)).

No *scrapes* or dredges shall be used between the first day of April and the first day of December. This sub-section is not to apply to the waters of the Chesapeake Bay or Hampton Roads nor to the taking of soft crabs or peeler crabs (3265(8)).

Terrapin

Maryland

It is unlawful to catch any salt water terrapin, diamond back terrapin or skilpots and sliders between April 1 and October 31, inclusive. It also is unlawful to have any such terrapin in one's possession during this period, whether caught in Maryland or elsewhere (117).

It is unlawful to catch any such terrapin less than 5 inches in length, measurement to be made on the bottom shell (118).

It is unlawful to take or interfere with, in any manner, terrapin eggs, except that this section shall not apply to persons owning pens built in the water which are used for propagation purposes during the closed season (119).

Virginia

It is unlawful after May 1 and before August 15 to take terrapin or terrapin eggs in the waters of certain specified counties or to have terrapin in one's possession or to offer them for sale in these counties. It also is unlawful after the first of May and before the 15th of August to take terrapin with a seine, net or weir in these specified counties (3270). It is unlawful to buy or sell diamond back terrapin between May 1 and October 1 (3271).

It is unlawful to take diamond back terrapin of less size than 5 inches in length bottom measurement (3271).

It is unlawful to take or disturb terrapin eggs in the waters of certain specified counties after May 1 and before October 15 (3270).

Miscellaneous

Taxation

Fish, while in the possession of fishermen employed in catching, salting and packing the same, or while in the possession of their

Taxation

Every resident who applies for a license to catch fish is to pay a specific license tax which shall be in lieu of all taxes levied upon

Maryland

agents unsold, are to be exempt from assessment and from State, county and city taxes. Article 81, Section 7 (13).

Virginia

such persons for taking and catching fish or for selling the product thereof (3160).

In the Virginia Tax Code (Sections 283-287, Appendix) in which is given a classification of the tangible personal property subject to local taxation only, no mention is made of fish. Boats of all kinds and seines, pound nets and other devices for catching fish *are* mentioned.

Herring

The Director of the Division of Markets may investigate and certify the quality, condition, grade or other classification of herring, under such rules and regulations and after payment of such fees as he may prescribe (3189a).

Testamentary Law

When the assets of a decedent's estate consist only of a boat or vessel, the appraised value of which does not exceed \$500., the certificate of registration may be transferred to the person entitled thereto and no administration of the decedent's estate need be had (Art. 93, Sec. 243B, enacted by Ch. 466 of 1945).

Testamentary Law

Whenever it shall appear to a court having control of a fund or supervision of its administration that an infant is entitled to a fund as distributee of any estate and the amount involved is less than \$500., it shall be lawful for the court to cause such fund to be applied to the maintenance and support of the infant (5343).

Whenever there is accrued to any person, adult or infant a sum of money not exceeding \$500., the same may

Maryland

Atlantic States Marine Fisheries Commission

By Ch. 435 of 1941, the Governor is empowered to execute a compact with the other states along the Atlantic seaboard. The compact is to be substantially in the form which is set out in that Act (26A-26F).

Riparian Rights

The owner of any land bordering on any tidal waters of the tributaries of the Chesapeake Bay or a tenant, renter or lessee of such owner, has first choice in setting up nets or a haul seine fishery in front of this property. If he does not avail himself of the opportunity, another person after proper notice may do so. Nothing in this section is to be construed to give any rights to fishermen to fish nearer than 500 yards opposite any shore used as a pleasure resort. This section is not to be applicable in four counties (24).

Virginia

be paid into the county court and by order of the court paid into the hands of such person without the intervention of an administrator, guardian or committee (6143a).

Atlantic States Marine Fisheries Commission

By Ch. 400 of 1942, the Governor is authorized to execute a compact with the other states of the Atlantic Seaboard. This compact is to be substantially similar to Public Resolution No. 79, 76th Congress, approved June 8, 1940, and to House Resolution No. 6020 of the 77th Congress (3157j and 3157k).

Riparian Rights

No person may go on the land of another to fish without the consent of the landowner or his agent (3305 (50)).

The beds of all waters within the jurisdiction of Virginia and not conveyed by special grant or contract shall continue and remain the property of the State and may be used in common by all the people of the State. The limits or bounds of adjacent lands shall extend to low water mark but no further except where a creek or river is comprised within the limits of a lawful survey (3573, 3574).

Maryland

A proprietor fronting on navigable waters has the exclusive right of making improvements into the water in front of his land, provided that he does not interfere with navigation therein (Art. 54, Sec. 47).

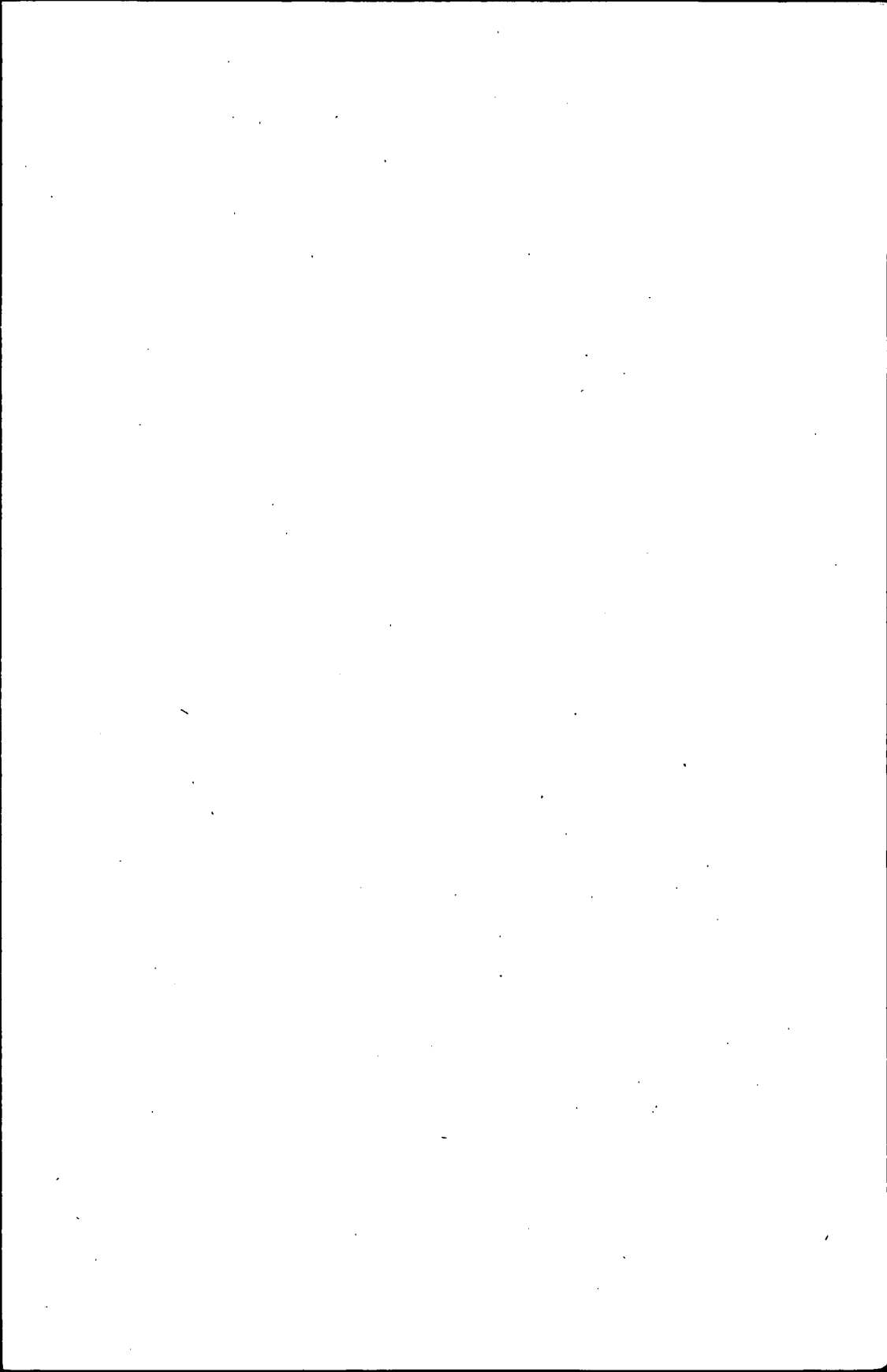
A riparian owner may erect or extend a pier, etc., on his property without incurring any liability for damage caused to an oyster bottom which was leased after June 1, 1941 (47A).

Health

The State Board of Health has broad powers for the abatement of nuisances injuriously affecting any adjacent property or district or dangerous to health (Art. 43, Sec. 103, *et seq.*).

*Virginia**Health*

The Health Commissioner and the Commissioner of Fisheries together may stop the preparation for market of fish, shell fish or crab meat if the packing house is so unsanitary as to be an unfit place. They also may prevent the removal of shell fish from polluted waters (3253).



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